



# Paleo Area School District

## Strategic Technology Plan 2010-2013

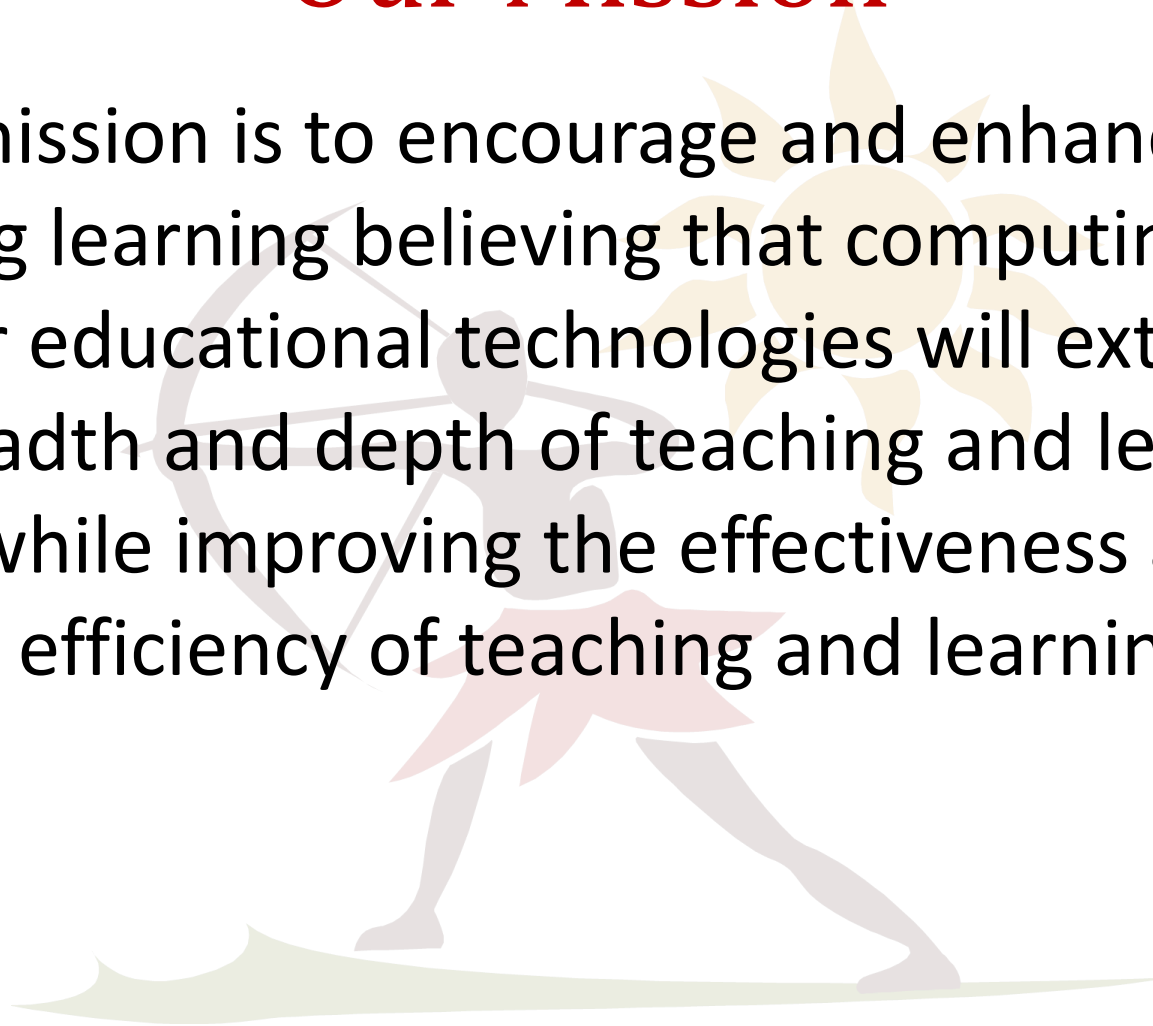
Presented July 2010

For GRIT 685

Xaras Collins-Brown

# Our Mission

Our mission is to encourage and enhance life-long learning believing that computing and other educational technologies will extend the breadth and depth of teaching and learning while improving the effectiveness and efficiency of teaching and learning.





# Our Vision

A background graphic featuring a stylized sun with rays in the upper right and a figure in the lower left. The figure is holding a bow and arrow, with the arrow pointing towards the sun. The figure is rendered in a light purple color, and the sun is in a light yellow color.

Our District seeks to develop global classroom experiences for our students that are driven by innovative teaching and student-centered learning. To that end, we provide ongoing professional development opportunities to enhance instructional practice in the classroom and support schools in realizing their individual student achievement goals.

With curricula built upon constructivist principals, we continue to work towards the effective integration of 21<sup>st</sup> century teaching and learning skills for our teachers and students utilizing proven educational technologies. Our expectation for our students is for them to become competitive and collaborative life-long learners with the ability to apply creativity and innovation to real-world situations through critical thinking, problem solving, and decision making skills.

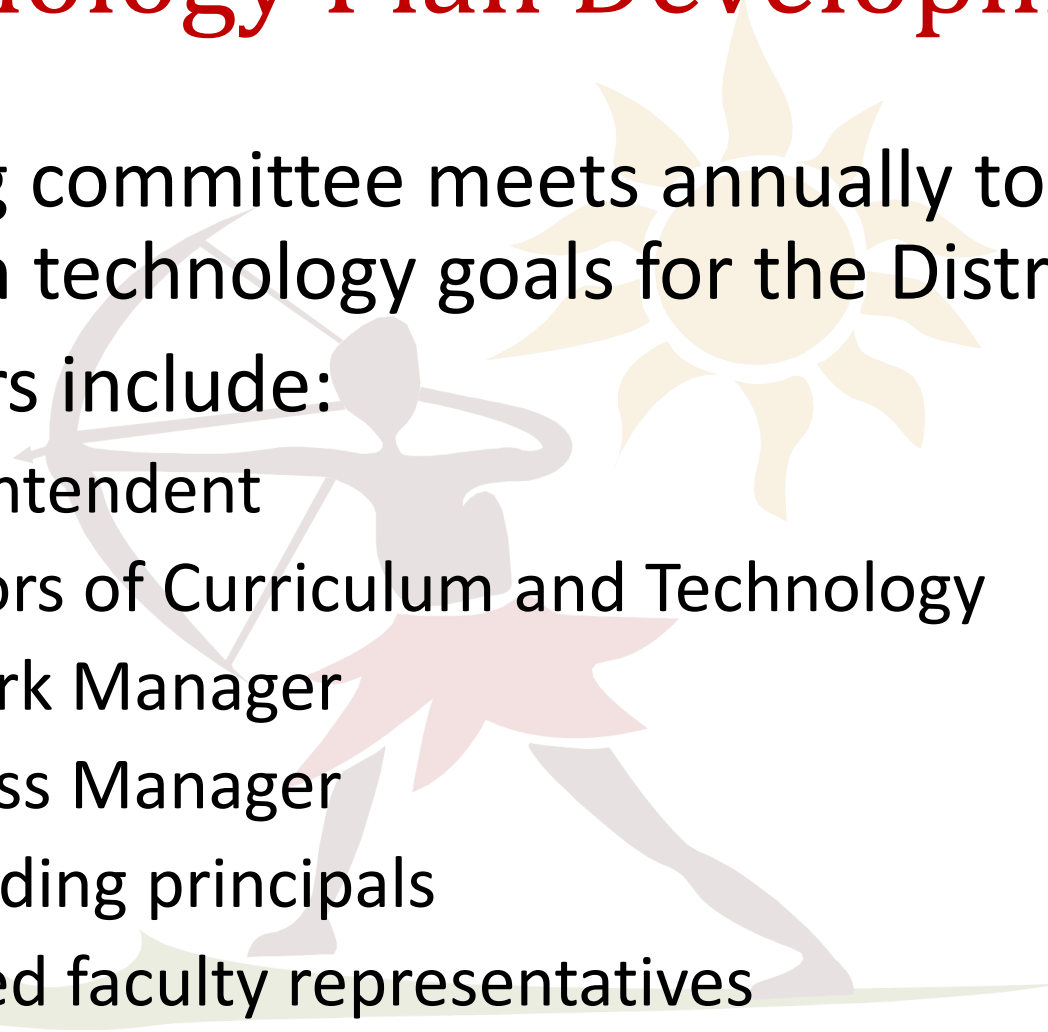
Through community partnerships and relations, we establish channels of communication that support the cultivation of students into digital citizens capable of successfully navigating and contributing to our technology enhanced society.





# Technology Plan Development

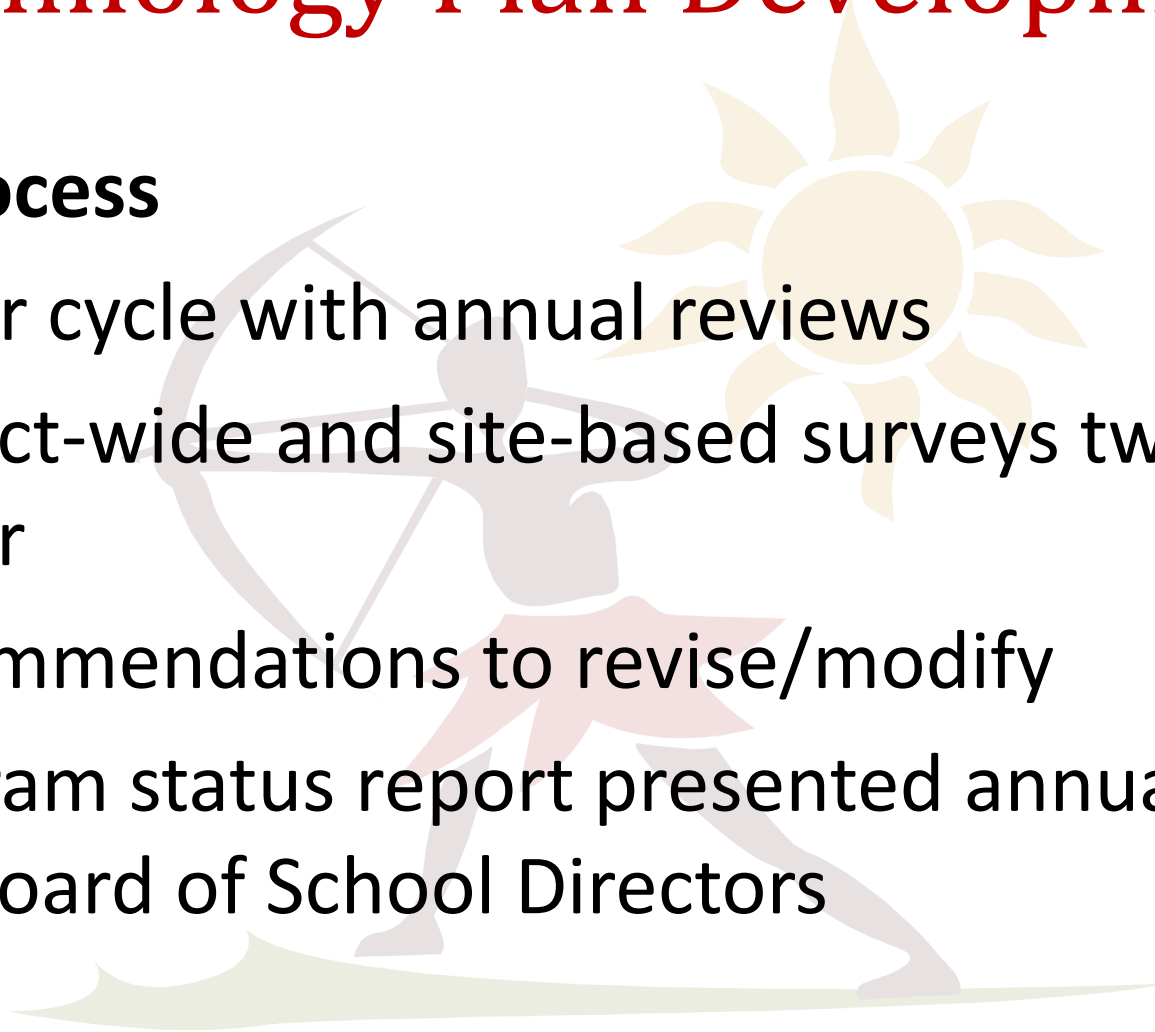
- Standing committee meets annually to establish technology goals for the District
- Members include:
  - Superintendent
  - Directors of Curriculum and Technology
  - Network Manager
  - Business Manager
  - All building principals
  - Selected faculty representatives



# Technology Plan Development

## The Process

- 3 year cycle with annual reviews
- District-wide and site-based surveys two times a year
- Recommendations to revise/modify
- Program status report presented annually to the Board of School Directors







# Strategic Goals for Implementation

A faint background graphic featuring a stylized sun with rays in the upper right and a silhouette of a person in a dynamic pose, holding a bow and arrow, in the center.

**Goal 1:** By 2012, all teachers will integrate some curriculum software within the existing general curriculum to support learning across all curricular disciplines.

**Strategy:** Teachers and students will utilize the tools and activities below to increase student engagement and achievement by establishing a 21<sup>st</sup> century teaching and learning environment.



A	B	C	D	E	F
Small World	High Dive	High Dive	Quadratics	Know Your	Personal
Graphs	Graphs	Other Stuff & Complex	Topics	Topics	Topics
10 Points	10 Points	10 Points	10 Points	10 Points	10 Points
20 Points	20 Points	20 Points	20 Points	20 Points	20 Points
30 Points	30 Points	30 Points	30 Points	30 Points	30 Points
40 Points	40 Points	40 Points	40 Points	40 Points	40 Points
50 Points	50 Points	50 Points	50 Points	50 Points	50 Points
60 Points	60 Points	60 Points	60 Points	60 Points	60 Points
70 Points	70 Points	70 Points	70 Points	70 Points	70 Points
80 Points	80 Points	80 Points	80 Points	80 Points	80 Points
90 Points	90 Points	90 Points	90 Points	90 Points	90 Points
100 Points	100 Points	100 Points	100 Points	100 Points	100 Points



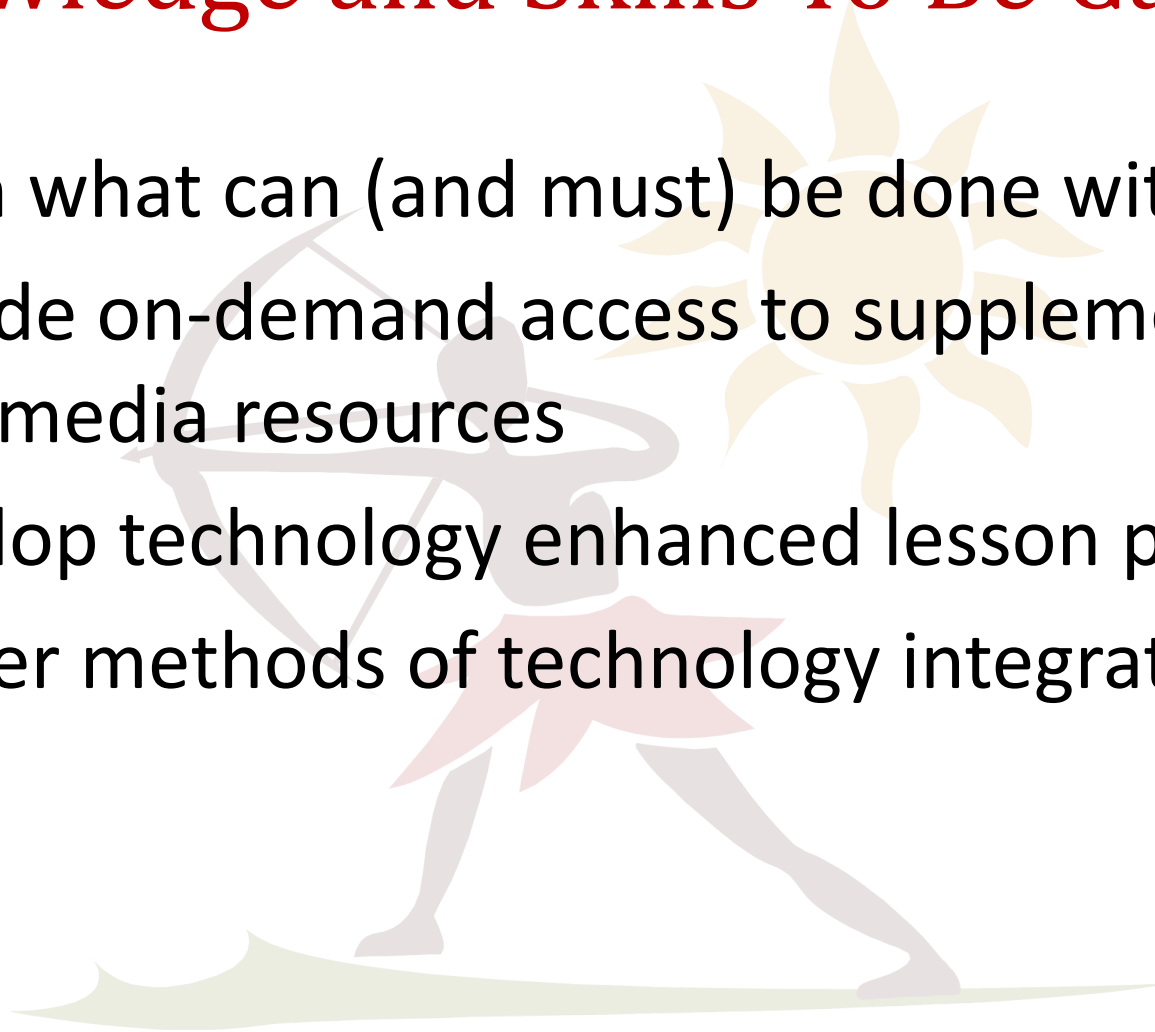


# Online Supplemental Subscriptions



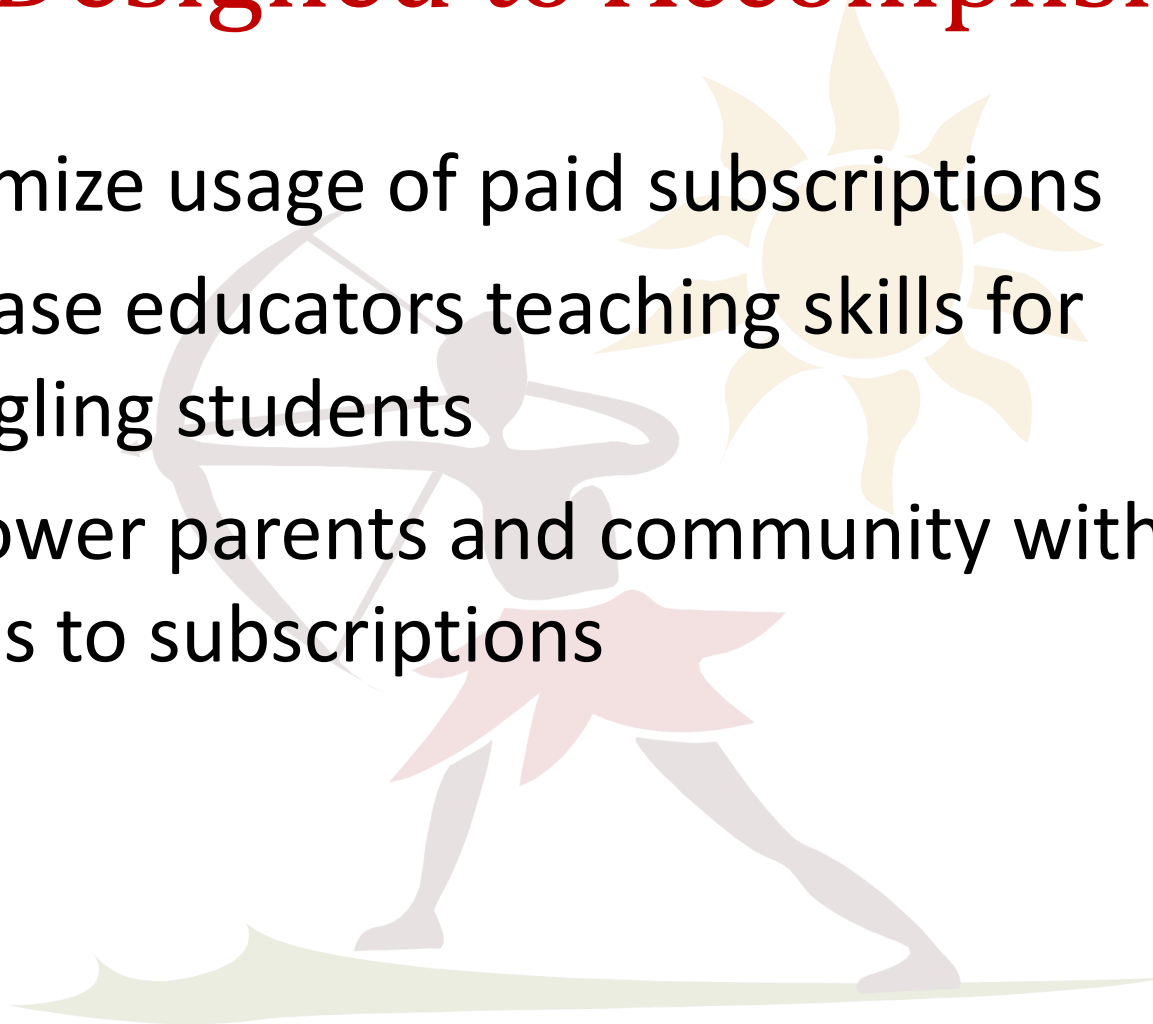
# Knowledge and Skills To Be Gained

- Learn what can (and must) be done with tools
- Provide on-demand access to supplemental multimedia resources
- Develop technology enhanced lesson plans
- Master methods of technology integration

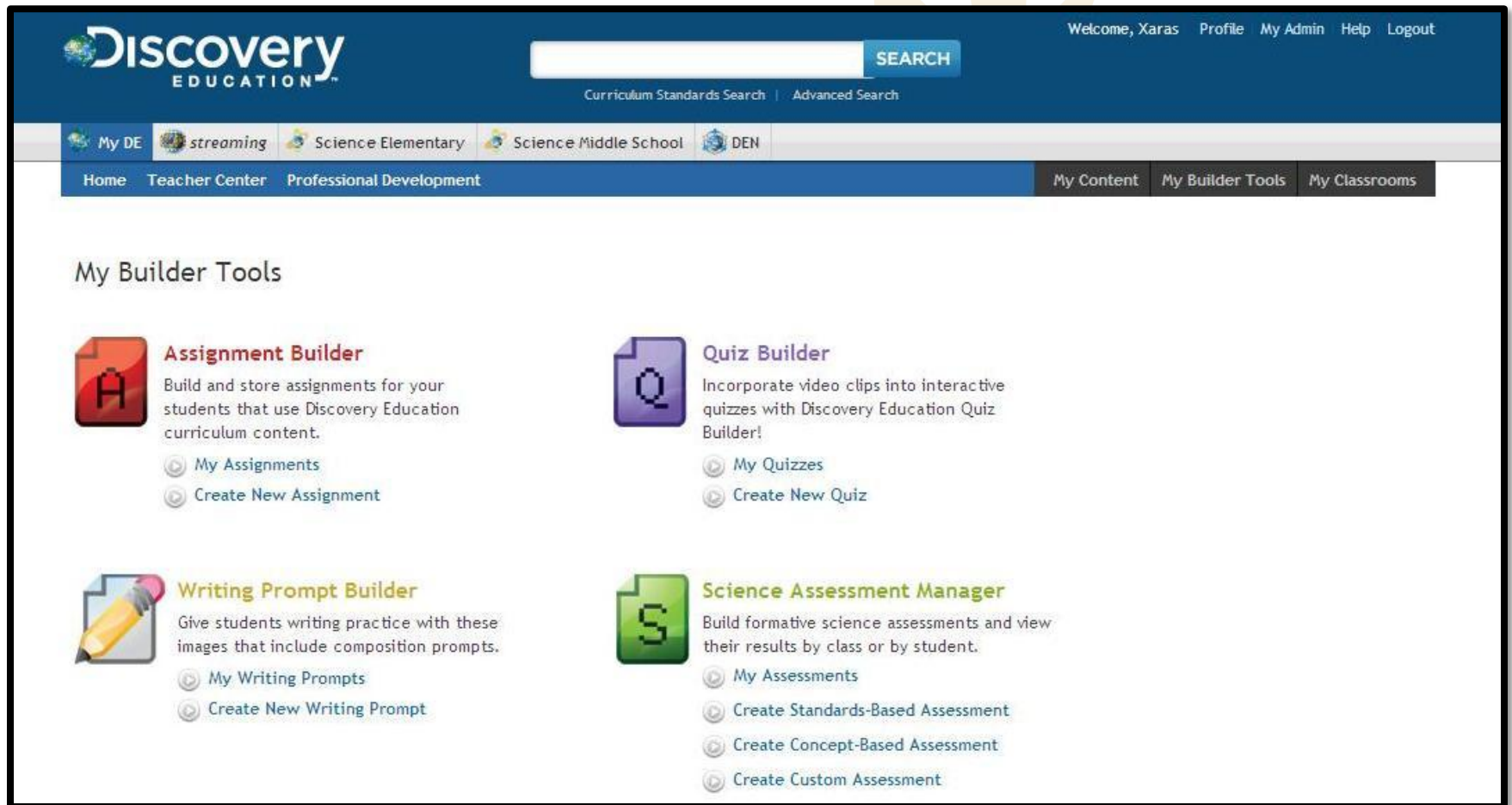


# Designed to Accomplish

- Maximize usage of paid subscriptions
- Increase educators teaching skills for struggling students
- Empower parents and community with home access to subscriptions



# Online Formative Assessments



The screenshot displays the Discovery Education website interface. At the top, the Discovery Education logo is on the left, and a search bar with a 'SEARCH' button is on the right. Below the search bar, there are links for 'Curriculum Standards Search' and 'Advanced Search'. A navigation bar includes links for 'My DE', 'streaming', 'Science Elementary', 'Science Middle School', and 'DEN'. Below this, a secondary navigation bar has 'Home', 'Teacher Center', 'Professional Development', 'My Content', 'My Builder Tools', and 'My Classrooms'. The main content area is titled 'My Builder Tools' and features four tool cards: 'Assignment Builder', 'Quiz Builder', 'Writing Prompt Builder', and 'Science Assessment Manager'. Each card includes a description and a list of actions.

**Discovery Education™**


Welcome, Xaras Profile My Admin Help Logout

Curriculum Standards Search | Advanced Search

My DE streaming Science Elementary Science Middle School DEN

Home Teacher Center Professional Development My Content My Builder Tools My Classrooms


## My Builder Tools



### Assignment Builder

Build and store assignments for your students that use Discovery Education curriculum content.


- My Assignments
- Create New Assignment



### Quiz Builder

Incorporate video clips into interactive quizzes with Discovery Education Quiz Builder!


- My Quizzes
- Create New Quiz



### Writing Prompt Builder

Give students writing practice with these images that include composition prompts.

- My Writing Prompts
- Create New Writing Prompt



### Science Assessment Manager

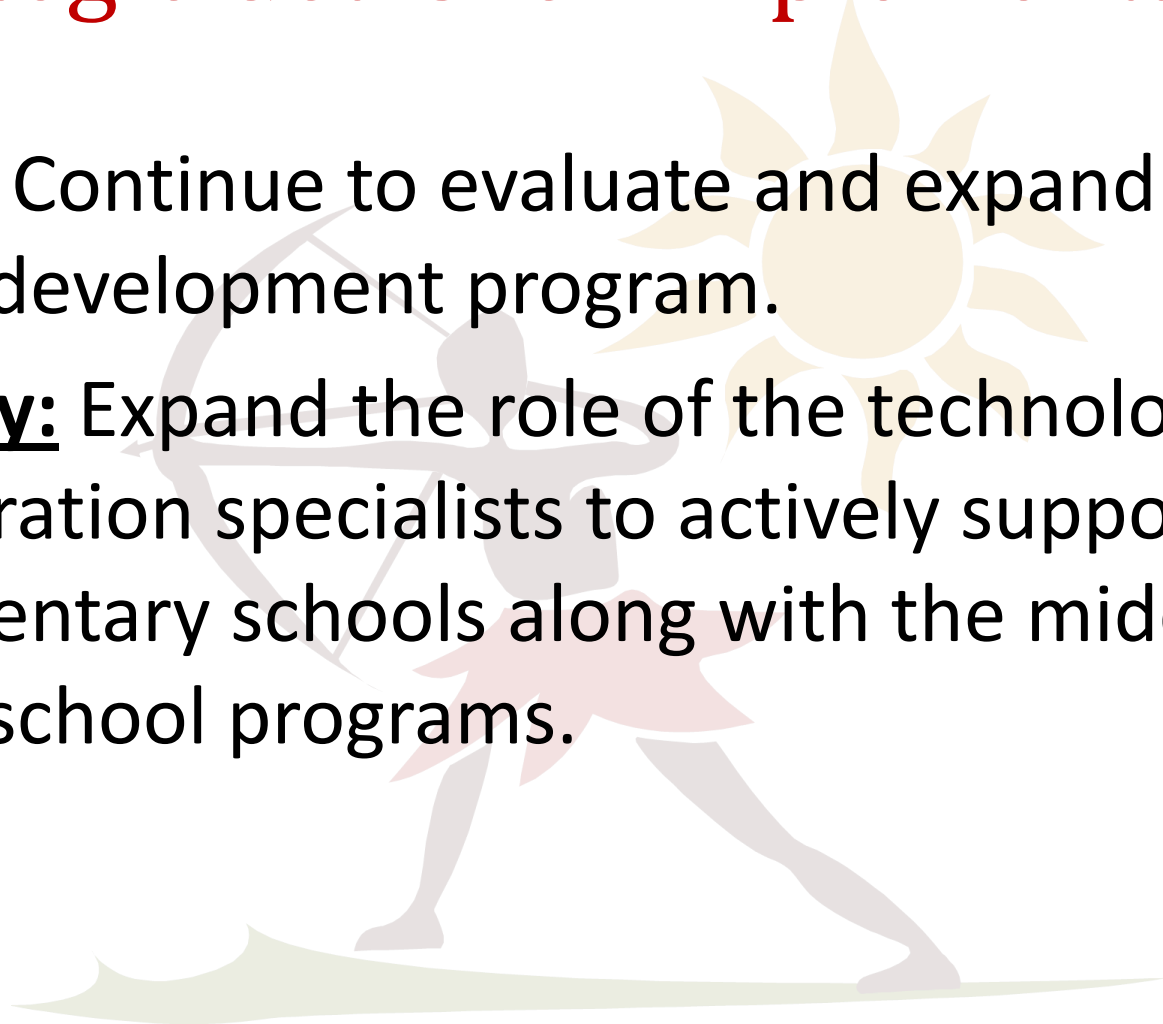
Build formative science assessments and view their results by class or by student.

- My Assessments
- Create Standards-Based Assessment
- Create Concept-Based Assessment
- Create Custom Assessment

# Strategic Goals for Implementation

**Goal 3:** Continue to evaluate and expand the staff development program.

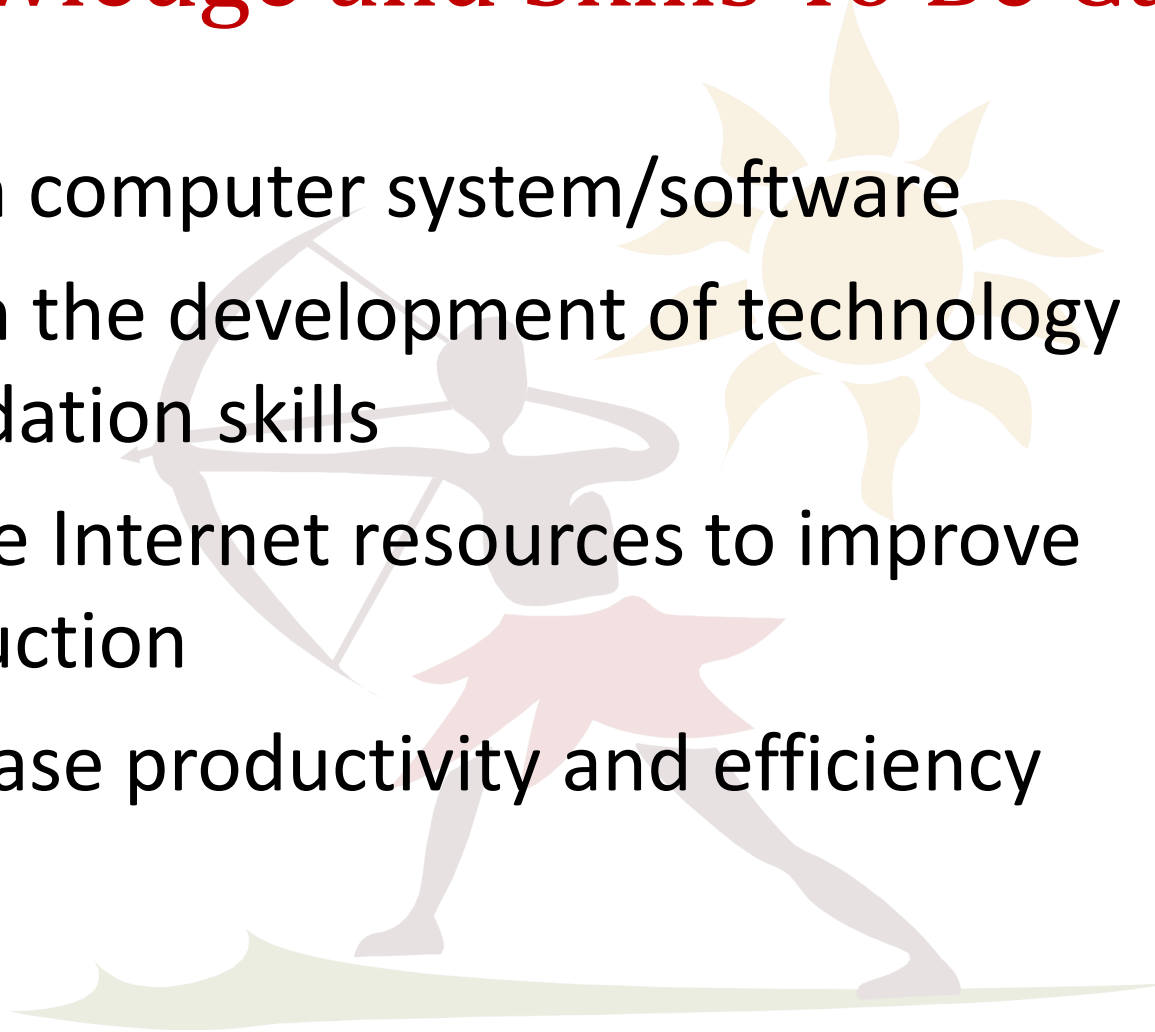
**Strategy:** Expand the role of the technology integration specialists to actively support the elementary schools along with the middle and high school programs.





# Knowledge and Skills To Be Gained

- Learn computer system/software
- Aid in the development of technology foundation skills
- Utilize Internet resources to improve instruction
- Increase productivity and efficiency



# Paleo Area School District



***HOME OF THE ARCHERS***

# Conclusion

## The ISTE National Educational Technology Standards (NETS-S) and Performance Indicators for Students

### 1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- apply existing knowledge to generate new ideas, products, or processes.
- create original works as a means of personal or group expression.
- use models and simulations to explore complex systems and issues.
- identify trends and forecast possibilities.

### 2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- develop cultural understanding and global awareness by engaging with learners of other cultures.
- contribute to project teams to produce original works or solve problems.

### 3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- plan strategies to guide inquiry.
- locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- process data and report results.

### 4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- identify and define authentic problems and significant questions for investigation.
- plan and manage activities to develop a solution or complete a project.
- collect and analyze data to identify solutions and/or make informed decisions.
- use multiple processes and diverse perspectives to explore alternative solutions.

### 5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- advocate and practice safe, legal, and responsible use of information and technology.
- exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- demonstrate personal responsibility for lifelong learning.

## The ISTE National Educational Technology Standards (NETS-T) and Performance Indicators for Teachers

Effective teachers model and apply the National Educational Technology Standards for Students (NETS-S) as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators. Teachers:

### 1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments. Teachers:

- promote, support, and model creative and innovative thinking and inventiveness
- engage students in applying real-world issues and solving authentic problems using digital tools and resources
- promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
- model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

### 2. Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS-S. Teachers:

- design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
- develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
- customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
- provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

### 3. Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society. Teachers:

- demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
- collaborate with students, peers, parents, and community members using digital tools and resources to support students' success and innovation
- communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats
- model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

### 4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practice. Teachers:

- address, model, and teach safe, legal, and ethical use of digital information and technology, including support for copyright, intellectual property, and the appropriate documentation of sources
- address the diverse needs of all learners by using learner-centered strategies and providing equitable access to appropriate digital tools and resources
- promote and model digital etiquette and responsible social interactions related to the use of technology and information
- develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools

### 5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers:

- participate in local and global learning communities to explore creative applications of technology to improve student learning
- exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
- evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
- contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community